

REMARKS

Amendments to the Claims

Claims 35-54 are pending in the application

Claims 1-20 have been cancelled, and are replaced with new method Claims 35-54. No new matter has been through the addition of Claims 35-54.

Support for Claims 35-54 is found within the originally filed specification and drawings. For example, the method of Claim 35 is supported by the specification at page 3, line 1 through page 4, line 2; by the specification at page 4, line 14 through page 5, line 8; and by the drawings at FIGS. 2, 3A, and 3B. More specifically, support for the structural elements of the pre-cast corner element and the attachment of the pre-cast corner element to the beam is contained, for example, in the specification at page 3, lines 1-9, in the specification at page 4, lines 14-20, and in the drawings at FIG. 2. Support for the filling of the cavities with concrete to be substantially flush with surfaces on the pre-cast corner elements is contained, for example, in FIGS. 3A and 3B. Further support is contained, for example, in the specification at page 3, lines 10-15, which states that:

The precast elements may form the *edges of the desired profile of the concrete* encasing the structural steel. FIG. 3A illustrates one embodiment of a cross section of a solid box beam with the precast elements 200, whereas FIG. 3B illustrates one embodiment a cross section of a solid box column with the precast elements 200. *An edge of the precast elements may include an edge chamfer 250 if it is desired on the final profile of the concrete encasement.* (emphasis added)

The method of Claims 36-38 are supported, for example, by the originally filed specification at page 3, lines 20-22, page 4, lines 8-9, and page 5, lines 6-7, as well as by FIGS. 3A and 3B.

The method of Claim 39 is supported, for example, by the originally filed specification at page 2, lines 15-21.

The method of Claim 40 is supported, for example, by the specification at page 3, line 1 through page 4, line 2; by the specification at page 4, line 14 through page 5, line 8; and by the drawings at FIGS. 2, 3A, and 3B. More specifically, support for the structural elements of the pre-cast corner element and the attachment of the pre-cast corner element to the beam is contained, for example, in the specification at page 3, lines 1-9, in the specification at page 4, lines 14-20, and in the drawings at FIG. 2. Support for pouring concrete into the cavities and allowing it to harden is contained, for example, in the specification at page 3, lines 20-22, page 4, lines 8-9, and page 5, lines 6-7, as well as in FIGS. 3A and 3B. Support for rotating the beam is inherent in the disclosure of the process of pouring described throughout the specification and drawings. Pouring naturally involves the use of gravity to feed concrete into the areas between the corner elements, and after the concrete in each area (or cavity) hardens, it is necessary that the beam be turned to allow another cavity to be poured with concrete.

The method of Claim 41 is supported, for example, by the originally filed specification at page 2, lines 15-21.

The method of Claim 42 is supported, for example, by the same portions of the specification and drawings as those described above for Claim 40.

The method of Claim 43 is supported, for example, by the same portions of the specification and drawings as those described above for Claim 35.

The method of Claim 44 is supported, for example, by the same portions of the specification and drawings as those described above for Claim 35. Support for filling each cavity with concrete to substantially fill the cavity is contained, for example, in FIGS. 3A and 3B. Further support is contained, for example, in the specification at page 3, lines 10-15, which states that:

The precast elements may form the *edges of the desired profile of the concrete* encasing the structural steel. FIG. 3A illustrates one embodiment of a cross section of a solid box beam with the precast elements 200, whereas FIG. 3B illustrates one embodiment a cross section of a solid box column with the precast elements 200. An *edge* of the precast elements may include an edge chamfer 250 if it is desired on the *final profile of the concrete encasement*. (emphasis added)

Further support for substantial filling is contained at page 3, lines 20-22.

The method of Claims 45-47 is supported, for example, by the same portions of the specification and drawings as those described above for Claim 36-38.

The method of Claim 48 is supported, for example, by the same portions of the specification and drawings as those described above for Claim 39.

The method of Claim 49 is supported, for example, by the specification at page 5, line 3 and by the drawings at FIGS. 3A and 3B.

The method of Claim 50 is supported, for example, by the same portions of the specification and drawings as those described above for Claim 40.

The method of Claim 51 is supported, for example, by the same portions of the specification and drawings as those described above for Claim 39.

The method of Claim 52 is supported, for example, by the same portions of the specification and drawings as those described above for Claims 40 and 42.

The method of Claim 53 is supported, for example, by the same portions of the specification and drawings as those described above for Claim 44.

The method of Claim 54 is supported, for example, by the same portions of the specification and drawings as those described above for Claim 49.

Claim Rejections – 35 USC § 102

Claims 1-6, 8-10, 23-24, 26-27, and 29-34 were rejected under 35 U.S.C. 102(b) as being anticipated by Hanna (1,984,132). The Examiner stated:

Hanna shows an apparatus comprising a precast element (C, C'), securement structure (D), the precast element including a top surface including a flat portion a bottom surface including a flat portion, a first and second side surface surfaces extending from the top surface to the bottom surface, the first side surface of the precast element being non-parallel relative to the second side surface of the element, the element including a fire proof material, the securement structure is attached to the element and projects out of the top surface of the precast element, the flat portion of the top surface of the precast element being substantially parallel to the flat portion of the bottom surface of the element, the securement structure is configured to secure the element to an I-beam (A), the securement structure including a clamp (the end of part E), the securement structure is permanently attached to the precast element, the element is configured to serve as a screed guide (inherently capable of doing so), the element is configured to serve as a stay in place screed guide (inherently capable of doing so), the element including a chamfer (at the 45 degree angle shown), a plurality of precast elements, the fireproof material is applied between the plurality of precast element.

With respect to the rejections of Claims 1-6, 8-10, 23-24, 26-27, and 29-34 under 102(b), Applicant submits that the rejections are moot due to the cancellation of the rejected claims. Applicant further submits that a rejection of the newly added method Claims 35-54 under 102(b) in view of Hanna would be improper since the reference does not disclose each and every element of the claims. MPEP §2131 provides that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). The MPEP further provides that “[t]he identical invention must be shown in as complete detail as contained in the . . . claim.” (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)).

Applicant respectfully requests consideration and allowance of Claims 35-54.

Claim Rejections – 35 U.S.C. § 103

Claims 7, 25, and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanna in view of Asleson et al. (1,976,595). The Examiner stated:

Hanna shows all the claimed limitations except for the material being concrete.

Hanna further discloses the material of parts C, C' being the same as material of part B'.

Asleson et al discloses a fireproof material for a beam (11) being concrete.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Hanna's structure to show the material being concrete as taught by Asleson et al because concrete is well known fire proof material for steel beam, and the material is readily available and cheap for construction.

With respect to the rejection under 103(a), Applicant submits that the rejection is moot due to the cancellation of the rejected claims. Applicant further submits that a rejection of the newly added method Claims 35-54 under 103(a) in view of Hanna and Asleson would be improper since the references, in combination, do not establish a *prima facie* case of obviousness. The references fail in combination to teach or suggest each and every limitation of the claims.

Applicant respectfully requests consideration and allowance of Claims 35-54.

Claims 11-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanna in view of Asleson et al. (1,976,595). The Examiner stated:

Hanna shows a system comprising a steel element (A), a precast element, one or more clamps (D), the one or more clamps releasably secured the precast element to the steel element, the precast element serving as a leave in place screed (inherently capable of doing so) so as to apply insulating material to the steel element to protect the steel element from fire, the steel element including a beam/column (A), the one or more clamps being integrated to the insulating element, the steel element including a flange, the one or more clamps releasably secured the element to the flange of the steel element from fire, the precast element including a chamfer, the precast element including a top surface including a flat portion, a bottom surface including a flat portion, the one or more clamps projects out of the top surface of the precast element, the precast element including the first and second side surfaces extending from the top surface to the bottom surface being substantially parallel with the bottom surface, the steel element being an I-shaped cross section.

Hanna does not show the precast element and the insulating material being concrete.

Hanna further discloses the material of parts C, C' being the same as material of part B'.

Asleson et al discloses a fireproof material for a beam (11) being concrete.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Hanna's structure to show the precast element and the insulating material being concrete as taught by Asleson et al because concrete is a

well known fire proof material for steel beam, and the material is readily available and cheap for construction.

With respect to the rejection under 103(a), Applicant submits that the rejection is moot due to the cancellation of the rejected claims. Applicant further submits that a rejection of the newly added method Claims 35-54 under 103(a) in view of Hanna and Asleson would be improper since the references, in combination, do not establish a *prima facie* case of obviousness. The references fail in combination to teach or suggest each and every limitation of the claims.


Applicant respectfully requests consideration and allowance of Claims 35-54.

CONCLUSION

Applicant respectfully submits that the pending Claims 35-54 are in condition for allowance and such a Notice is respectfully requested. The Examiner is invited to call the undersigned at the below-listed telephone number if, in the opinion of the Examiner, such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

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